## Abstract

The process of teaching and learning to the graduation process is a span the length of the period of study to complete the process of education on the course traveled by the student. But not all students can complete the study period is on time, resulting in a buildup of the number of students who did not pass in accordance with the period of high school graduation. One way to achieve the highest quality of the college system is to dig up the knowledge from the academic field data. This thesis aims to analyze how much a graduation or ketidaklulusan on students by implementing algorithms knowledge tracing in predicting the study period the student. The period of study can be found by looking at the graduation or ketidaklulusan, both students graduating on time, and not on time. Knowledge tracing parameter in this case study, namely K0 (initial value knowledge user or the value of the compulsory subjects at level 1 i.e. the semester 1 and 2), guess, slip, and the learning rate (constant value number of students at the Faculty of Informatics especially the force 2015 and 2016) effect on the value of knowledge users. It is in this final Task can be known best time do predictions of graduation on time and not just in time for the study period the student using prior knowledge, i.e. for regular student year 2 (level 2) is when a student have passed courses from semester 3 to 4 semesters 3 up to 5 semester with the precision of 75.8%.

Keyword: the period of study, knowledge tracing, K0, slip, guess, learning rate.